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$#3$ **PATENT**

Docket No.: 38188-382

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of   :

Alan K. Gorenstein   :

Serial No.: 09/766,636   :   Group Art Unit: Unassigned

Filed: January 23, 2001   :   Examiner: Unassigned

For: SYSTEM AND METHOD FOR COMPOSITE CUSTOMER SEGMENTATION

PETITION TO MAKE SPECIAL UNDER 37 CFR § 1.102(d)

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Applicant hereby petitions to make special the above-identified application in accordance with 37 CFR § 1.102(d). Pursuant to MPEP § 708.02(VIII), Applicant complies with each of the following items:

A.   FEE

Please charge Deposit Account 500417 the amount of $130.00 as set forth in 37 CFR § 1.17(i) to cover the fee for the present Petition to Make Special.

B.   SINGLE INVENTION

If the Office determines that all the claims presented are not obviously directed to a single invention, Applicants will make an election without traverse and hereby invites the Examiner to telephone the undersigned Applicants' representative for a telephonic election.
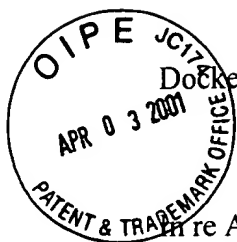
C. PRE-EXAMINATION SEARCH

Applicants submit that a pre-examination search has been made. The field of search covers:

a) online keyword searching of non-patent literature databases including Business & Industry, ABI/INFORM, Gale Group F&S Index, World Reporter, Gale Group Trade and Industry, PROMT(R) (1972-200), Insurance Periodicals, Finance & Banking Newsletter, Banking Information Source, Financial Times Abstracts, Wall Street Journal Abstracts, Business Week, CMP Computer Fulltext, Computer News Fulltext, Internet and Personal Computer Abstracts, SoftBase, and a variety of other resources; and

b) online and manual searching of Class 705, subclasses 10 and 14 and Class 707, subclass 2.

D. COPY OF REFERENCES

A copy of each of the references from the search are hereby made of record in the accompanying Information Disclosure Statement. Of these references, the following specific references are deemed, for purpose of this Petition, most closely related to the subject matter encompassed by the claims:

1. Barnoff et al., "Industry Segmentation and Predictor Motifs for Solvency Analysis of the Life/Health Insurance Industry", *Journal of Risk and Insurance*, v. 66 n. 1, pp. 99-123, Mar. 1999.

2. Ezop, "Database Marketing Research", *Marketing Research: A Magazine of Management & Applications*, v. 6, n. 4, pp. 34-41, Fall 1994.

3. Riquier et al., "Probabilistic Segmentation Modeling", *Journal of Market Research Society*, v. 39 n. 4, pp.57-73.

4. Kopp et al., "A Competitive Structure and Segmentation Analysis of the Chicago Fashion Market", *Journal of Retailing*, V. 65 n. 4, pp. 496-515, Winter 1989.

5. Li, "Preventing Model Muddle (Use of Response, Risk, and Combination Models)", *Direct Marketing*, v. 52 n. 4, pp. 20-22, August 1989.

6. English Abstract of JP 6-12456, "Customer Management System Using Segment Record History

7. U.S. Patent No. 5,956,693

8. U.S. Patent No. 6,061,658

C.   DETAILED DISCUSSION

Applicant submits the following detailed discussion of the references deemed most closely related to the subject matter encompassed by the claims, pointing out, with the particularity required by 37 CFR 1.11(b) and (c), how the claimed subject matter is patentable over the references.

The present invention relates to a method and system for segmenting customer populations. In particular, a number of strategies for explaining variance among customers can be used to segment populations. These different strategies can include different measures of variance for the same target, different targets but the same measure of variance, and different targets as well as different measures of variance. The scores from the different strategies are then combined to form a composite score with which the population can be segmented.

1. Barnoff et al., "Industry Segmentation and Predictor Motifs for Solvency Analysis of the Life/Health Insurance Industry", *Journal of Risk and Insurance*, **v. 66 n. 1, pp. 99-123, Mar. 1999.**

The article by Barnhoff et al. describes a method for customer scoring that uses logistical regression to determine the robustness of a variable's value. However, each specific sub-variable can appear in only one actual variable. Another logistical regression is then conducted to create a score.

Unlike the method described in the article, the present invention scores multiple post-model targets using any explanation of variance appropriate (with specific variables allowed to repeat throughout the multiple explanations of variance). Furthermore, a composite of these scores is then created to arrive at a final ranking.

2. Ezop, "Database Marketing Research", *Marketing Research: A Magazine of Management & Applications*, v. 6, n. 4, pp. 34-41, Fall 1994.

This article describes the use of customer database records in combination with survey research to improve the effectiveness of marketing efforts.

The article by Ezop, however, does not suggest developing multiple explanations of variance and their subsequent fusion into a single segmentation score, as recited in the claims of the present invention.

3. Riquier et al., "Probabilistic Segmentation Modeling", *Journal of Market Research Society*, v. 39 n. 4, pp.57-73.

Riquier et al. describe a method for probabilistic segmentation modeling. While the authors discuss the use of a particular predictor variable to be used in segmentation, the method of the article uses only a single explanation of variance.

Unlike the presently claimed invention, the article does not describe multiple, different explanations of variance being used to generate a plurality of scores that are fused into a single score.

4. Kopp et al., "A Competitive Structure and Segmentation Analysis of the Chicago Fashion Market", *Journal of Retailing*, **V. 65 n. 4, pp. 496-515, Winter 1989.**

This article describes a method for segmenting female apparel shoppers based on different groupings of competitive stores instead of an individual retailer.

The described model discusses using more variables within a single segmentation method. However, unlike the claimed invention, the article does not disclose or suggest the use of multiple explanations of variance and their subsequent fusion into a single score.

5. Li, "Preventing Model Muddle (Use of Response, Risk, and Combination Models)", *Direct Marketing*, **v. 52 n. 4, pp. 20-22, August 1989.**

Li compares and contrasts risk models and response models used by marketers to predict consumer behavior. A mixed model is described which is similar to the use of spend/linear models following response/logistic models in order to minimize direct-mail quantities.

However, unlike the presently claimed invention, the article does not disclose or suggest a fusion between multiple, different explanations of variance that surpasses each of the stand-alone explanations of variance.

6. English Abstract of JP 6-12456, "Customer Management System Using Segment Record History"

The English abstract of the Japanese patent appears to describe a computerized customer management system for segmenting customer populations. The described computerized method differs from the present invention in that the abstract does not describe using multiple explanations of variance nor creating a composite segmentation score.

7. U.S. Patent No. 5,956,693

Geerlings describes allowing for a single explanation of variance when determining the segmentation of potential customers. This explanation of variance is described as business-rule set by merchants, a regression method that uses more than one variable to predict a specific event, or neural nets. Geerlings holds, as unique, that the variables are dynamic such that as customers exhibit new behaviors their resulting score is updated.

In contrast to Geerlings, the present claims recite taking disparate explanations of variance (which, for example, can include business rules, neural nets, and multiple regressions) and then fusing their results into a composite model.

8. U.S. Patent No. 6,061,658

Chou et al. describe the use of a single explanation of variance when determining the segmentation of potential target customers. This explanation of variance is described as a creation of segments using a "Tree Induction" algorithm (e.g., CHAID or CHART analyses). Once segmentation has occurred, each segment is scored based on the calculations of a single ratio-based statistical score that reflects a single specific historical observation (e.g., market penetration rate). It is conventionally known that once segmentation has occurred, many observations can be made for each of the segments.

The present claims distinguish over Chou et al. by reciting the taking of disparate explanations of variance (which, for example, can include, CHART, CHAID, and other tree induction algorithms) and fusing their results into a composite model.

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E. CONCLUSION

In view of the above, it is urged that the petition to make special is in proper form, and an indication of grant is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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